

SEQUENCE LISTING

<110> University of Technology, Sydney

<120> Parasite Antigens

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<160> 59

<170> PatentIn version 3.1

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<211> 242

<212> PRT

<213> Neospora caninum

<400> 1

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          35          40          45
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          50          55          60
Asn Ser Gly Ile Val Ser Phe Gly Asp Ser Ala Ala Gly Ser Gly Ala
65          70          75          80
Phe Asn Ser Met Asp Val Gln Asn Phe Leu Gln Arg Tyr Ala Thr Ser
          85          90          95
Lys Met Phe Gly Val Pro Pro His Phe Phe Gln Ser Arg Glu Ser Leu
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Arg Val Trp Gly Ala Asp His Leu Thr Asp Pro Met Val Gln Pro Tyr
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Glu Lys Asp Asp Gln Asn Leu Pro Asn Pro Phe His Val Ser Leu Pro
130          135          140

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 Thr Trp Ile Pro His Trp Glu Pro Asp Pro Asn Phe Lys Pro Gln Ala
 180 185 190
 Tyr Asn Phe Asn Trp Glu Glu Asn Gly Thr Phe Gln Met Glu Arg Leu
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 Arg Val

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<213> Neospora caninum

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 35 40 45
 Glu Thr Val Gln Ala Leu Val Glu Gln His Arg Phe Ser Asn Asp Tyr
 50 55 60
 Asp Gln Glu Ala Glu Tyr Arg Arg Arg Arg Gln Glu Leu Gly Ser Gln
 65 70 75 80
 Thr Pro Glu Glu Ile Glu Glu Ala Lys Arg Lys Tyr Arg Lys Gln Val
 85 90 95
 Leu Lys Glu Gln Gln Glu Asp Glu Glu Leu Lys Lys Lys Thr Asp Ala
 100 105 110
 Val Ile Glu Glu Leu Lys Lys Thr Ala Glu Glu Arg Gly Leu Arg Arg
 115 120 125

Tyr Pro Glu Arg Asp Glu Asp Arg Thr Asp Asp Gln Gln Met Asp Phe
 130 135 140

Glu Thr Arg Gln Arg Glu Leu Arg Asn Met Asp Ser Ala Thr Lys Ala
 145 150 155 160

Gln Leu Leu Lys Gln Arg Arg Lys Glu Asn Glu Glu Arg Asn Arg Val
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<212> PRT

<213> Neospora caninum

<400> 3

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 35 40 45

Asp Val Arg Glu Ser Met Ala Ala Pro Glu Asp Leu Pro Gly Glu Arg
 50 55 60

Gln Pro Glu Thr Pro Thr Ala Glu Ala Val Lys Gln Ala Ala Ala Lys
 65 70 75 80

Ala Tyr Arg Leu Leu Lys Gln Phe Thr Ala Lys Val Gly Gln Glu Thr
 85 90 95

Glu Asn Ala Tyr Tyr His Val Lys Lys Ala Thr Met Lys Gly Phe Asp
 100 105 110

Val Ala Lys Asp Gln Ser Tyr Lys Gly Tyr Leu Ala Val Arg Lys Ala
 115 120 125

Thr Ala Lys Gly Leu Gln Ser Ala Gly Lys Ser Leu Glu Leu Lys Glu
 130 135 140

Ser Ala Pro Thr Gly Thr Thr Thr Ala Ala Pro Thr Glu Lys Val Pro
 145 150 155 160

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Pro Ser Gly Pro Arg Ser Gly Glu Val Gln Arg Thr Arg Lys Glu Gln
165 170 175

Asn Asp Val Gln Gln Thr Ala Glu Met Leu Ala Glu Glu Ile Leu Glu
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<213> Neospora caninum

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35 40 45

Asp Gln Asn Leu Pro Asn Pro Phe His Val Ser Leu Pro Gly Tyr Ser
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Pro Ser Leu Cys Lys Tyr Val Leu Thr Lys Gly Glu Lys Pro Pro Arg
65 70 75 80

Asp Pro Leu Leu Gly Pro Glu Ile Thr Ile Tyr Pro Pro Thr Trp Ile
85 90 95

Pro His Trp Glu Pro Asp Pro Asn Phe Lys Pro Gln Ala Tyr Asn Phe
100 105 110

Asn Trp Glu Glu Asn Gly Thr Phe Gln Met Glu Arg Leu Pro Tyr Ala
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<212> PRT

<213> Neospora caninum

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Asp Gln Glu Ala
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<213> Neospora caninum

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35 40 45
Thr Val Gln Ala Leu Val Glu Gln His Arg Phe Ser Asn Asp Tyr Asp
50 55 60
Gln Glu Ala Glu Tyr Arg Arg Arg Gln Glu Leu Gly Ser Gln Thr
65 70 75 80
Pro Glu Glu Ile Glu Glu Ala Lys Arg Lys Tyr Arg Lys Gln Val Leu
85 90 95

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Lys Glu Gln Gln Glu Asp Glu Glu Leu Lys Lys Lys Thr Asp Ala Val
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Ile Glu Glu Leu Lys Lys Thr Ala Glu Glu Arg Gly Leu Arg Arg Tyr
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<212> DNA

<213> Neospora caninum

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<212> DNA

<213> Neospora caninum

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<213> *Neospora caninum*

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<210> 10

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<213> *Neospora caninum*

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<213> *Neospora caninum*

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<212> PRT

<213> Toxoplasma gondii

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<400> 13

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35 40 45
Val Gly Gly Lys Gly Glu His Thr Pro Pro Leu Pro Asp Glu Arg Gln
50 55 60
Gln Glu Pro Glu Glu Pro Val Ser Gln Arg Ala Ser Arg Val Ala Glu
65 70 75 80
Gln Leu Phe Arg Lys Phe Leu Lys Phe Ala Glu Asn Val Gly His His
85 90 95
Ser Glu Lys Ala Phe Lys Lys Ala Lys Val Val Ala Glu Lys Gly Phe
100 105 110
Thr Ala Ala Lys Thr His Thr Val Arg Gly Phe Lys Val Ala Lys Glu
115 120 125
Ala Ala Gly Arg Gly Met Val Thr Val Gly Lys Lys Leu Ala Asn Val
130 135 140
Glu Ser Asp Arg Ser Thr Thr Thr Thr Gln Ala Pro Asp Ser Pro Asn
145 150 155 160
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<212> DNA

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<223> PCR primer

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30

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<211> 17

<212> DNA

<213> Artificial Sequence

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<223> PCR primer

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<210> 17

<211> 15

<212> DNA

<213> Artificial Sequence

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<223> PCR primer

<400> 17

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15

<210> 18

<211> 17

<212> DNA

<213> Artificial Sequence

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<223> PCR primer

<400> 18

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<212> DNA

<213> Artificial Sequence

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<212> DNA

<213> Artificial Sequence

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18

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<212> DNA

<213> Artificial Sequence

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<223> PCR primer

<400> 21

gcctcaagaa tttcctcagc

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<213> Artificial Sequence

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18

<210> 24

<211> 31

<212> DNA

<213> Artificial Sequence

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<223> PCR primer

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<210> 26

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<212> DNA

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